



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification <sup>6</sup> : <b>C07K 14/16</b></p>	<b>A1</b>	<p>(11) International Publication Number: <b>WO 99/24464</b></p> <p>(43) International Publication Date: <b>20 May 1999 (20.05.99)</b></p>																																												
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top; padding: 5px;"> <p>(21) International Application Number: <b>PCT/US98/23998</b></p> <p>(22) International Filing Date: <b>10 November 1998 (10.11.98)</b></p> <p>(30) Priority Data:</p> <table style="width: 100%; border: none;"> <tr><td style="width: 30%;">08/966,932</td><td style="width: 40%;">10 November 1997 (10.11.97)</td><td style="width: 30%;">US</td></tr> <tr><td>08/976,148</td><td>10 November 1997 (10.11.97)</td><td>US</td></tr> <tr><td>08/967,708</td><td>10 November 1997 (10.11.97)</td><td>US</td></tr> <tr><td>08/967,403</td><td>10 November 1997 (10.11.97)</td><td>US</td></tr> <tr><td>08/966,987</td><td>10 November 1997 (10.11.97)</td><td>US</td></tr> <tr><td>08/976,741</td><td>24 November 1997 (24.11.97)</td><td>US</td></tr> <tr><td>60/089,581</td><td>17 June 1998 (17.06.98)</td><td>US</td></tr> <tr><td>60/089,580</td><td>17 June 1998 (17.06.98)</td><td>US</td></tr> <tr><td>09/100,762</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> <tr><td>09/100,631</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> <tr><td>09/100,521</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> <tr><td>09/100,763</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> <tr><td>09/100,529</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> <tr><td>09/100,764</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> </table> <p>(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application US <b>60/089,581 (CIP)</b> Filed on <b>17 June 1998 (17.06.98)</b></p> </td> <td style="width: 50%; vertical-align: top; padding: 5px;"> <p>(71) Applicants (for all designated States except US): <b>DANA-FARBER CANCER INSTITUTE [US/US]; 44 Binney Street, Boston, MA 02115 (US); THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK [US/US]; West 116th Street &amp; Broadway, New York, NY 10027 (US).</b></p> <p>(72) Inventors; and (75) Inventors/Applicants (for US only): <b>WYATT, Richard, T. [US/US]; 11 Delphi Circle, Andover, MA 01810 (US). SO-DROSKI, Joseph, G. [US/US]; 10 Ashland Place, Medford, MA 02155 (US). KWONG, Peter, D. [US/US]; Apartment 403, 352 West 15th Street, New York, NY 10011 (US). HENDRICKSON, Wayne, A. [US/US]; 161 Mt. Hope Boulevard, Hastings-On-Hudson, NY 10706 (US).</b></p> <p>(74) Agents: <b>EISENSTEIN, Ronald, I. et al.; Dike, Bronstein, Roberts &amp; Cushman, LLP, 130 Water Street, Boston, MA 02109-4280 (US).</b></p> <p>(81) Designated States: <b>AU, CA, JP, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</b></p> <p><b>Published</b> <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p> </td> </tr> </table>			<p>(21) International Application Number: <b>PCT/US98/23998</b></p> <p>(22) International Filing Date: <b>10 November 1998 (10.11.98)</b></p> <p>(30) Priority Data:</p> <table style="width: 100%; border: none;"> <tr><td style="width: 30%;">08/966,932</td><td style="width: 40%;">10 November 1997 (10.11.97)</td><td style="width: 30%;">US</td></tr> <tr><td>08/976,148</td><td>10 November 1997 (10.11.97)</td><td>US</td></tr> <tr><td>08/967,708</td><td>10 November 1997 (10.11.97)</td><td>US</td></tr> <tr><td>08/967,403</td><td>10 November 1997 (10.11.97)</td><td>US</td></tr> <tr><td>08/966,987</td><td>10 November 1997 (10.11.97)</td><td>US</td></tr> <tr><td>08/976,741</td><td>24 November 1997 (24.11.97)</td><td>US</td></tr> <tr><td>60/089,581</td><td>17 June 1998 (17.06.98)</td><td>US</td></tr> <tr><td>60/089,580</td><td>17 June 1998 (17.06.98)</td><td>US</td></tr> <tr><td>09/100,762</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> <tr><td>09/100,631</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> <tr><td>09/100,521</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> <tr><td>09/100,763</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> <tr><td>09/100,529</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> <tr><td>09/100,764</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> </table> <p>(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application US <b>60/089,581 (CIP)</b> Filed on <b>17 June 1998 (17.06.98)</b></p>	08/966,932	10 November 1997 (10.11.97)	US	08/976,148	10 November 1997 (10.11.97)	US	08/967,708	10 November 1997 (10.11.97)	US	08/967,403	10 November 1997 (10.11.97)	US	08/966,987	10 November 1997 (10.11.97)	US	08/976,741	24 November 1997 (24.11.97)	US	60/089,581	17 June 1998 (17.06.98)	US	60/089,580	17 June 1998 (17.06.98)	US	09/100,762	18 June 1998 (18.06.98)	US	09/100,631	18 June 1998 (18.06.98)	US	09/100,521	18 June 1998 (18.06.98)	US	09/100,763	18 June 1998 (18.06.98)	US	09/100,529	18 June 1998 (18.06.98)	US	09/100,764	18 June 1998 (18.06.98)	US	<p>(71) Applicants (for all designated States except US): <b>DANA-FARBER CANCER INSTITUTE [US/US]; 44 Binney Street, Boston, MA 02115 (US); THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK [US/US]; West 116th Street &amp; Broadway, New York, NY 10027 (US).</b></p> <p>(72) Inventors; and (75) Inventors/Applicants (for US only): <b>WYATT, Richard, T. [US/US]; 11 Delphi Circle, Andover, MA 01810 (US). SO-DROSKI, Joseph, G. [US/US]; 10 Ashland Place, Medford, MA 02155 (US). KWONG, Peter, D. [US/US]; Apartment 403, 352 West 15th Street, New York, NY 10011 (US). HENDRICKSON, Wayne, A. [US/US]; 161 Mt. Hope Boulevard, Hastings-On-Hudson, NY 10706 (US).</b></p> <p>(74) Agents: <b>EISENSTEIN, Ronald, I. et al.; Dike, Bronstein, Roberts &amp; Cushman, LLP, 130 Water Street, Boston, MA 02109-4280 (US).</b></p> <p>(81) Designated States: <b>AU, CA, JP, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</b></p> <p><b>Published</b> <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p>
<p>(21) International Application Number: <b>PCT/US98/23998</b></p> <p>(22) International Filing Date: <b>10 November 1998 (10.11.98)</b></p> <p>(30) Priority Data:</p> <table style="width: 100%; border: none;"> <tr><td style="width: 30%;">08/966,932</td><td style="width: 40%;">10 November 1997 (10.11.97)</td><td style="width: 30%;">US</td></tr> <tr><td>08/976,148</td><td>10 November 1997 (10.11.97)</td><td>US</td></tr> <tr><td>08/967,708</td><td>10 November 1997 (10.11.97)</td><td>US</td></tr> <tr><td>08/967,403</td><td>10 November 1997 (10.11.97)</td><td>US</td></tr> <tr><td>08/966,987</td><td>10 November 1997 (10.11.97)</td><td>US</td></tr> <tr><td>08/976,741</td><td>24 November 1997 (24.11.97)</td><td>US</td></tr> <tr><td>60/089,581</td><td>17 June 1998 (17.06.98)</td><td>US</td></tr> <tr><td>60/089,580</td><td>17 June 1998 (17.06.98)</td><td>US</td></tr> <tr><td>09/100,762</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> <tr><td>09/100,631</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> <tr><td>09/100,521</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> <tr><td>09/100,763</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> <tr><td>09/100,529</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> <tr><td>09/100,764</td><td>18 June 1998 (18.06.98)</td><td>US</td></tr> </table> <p>(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application US <b>60/089,581 (CIP)</b> Filed on <b>17 June 1998 (17.06.98)</b></p>	08/966,932	10 November 1997 (10.11.97)	US	08/976,148	10 November 1997 (10.11.97)	US	08/967,708	10 November 1997 (10.11.97)	US	08/967,403	10 November 1997 (10.11.97)	US	08/966,987	10 November 1997 (10.11.97)	US	08/976,741	24 November 1997 (24.11.97)	US	60/089,581	17 June 1998 (17.06.98)	US	60/089,580	17 June 1998 (17.06.98)	US	09/100,762	18 June 1998 (18.06.98)	US	09/100,631	18 June 1998 (18.06.98)	US	09/100,521	18 June 1998 (18.06.98)	US	09/100,763	18 June 1998 (18.06.98)	US	09/100,529	18 June 1998 (18.06.98)	US	09/100,764	18 June 1998 (18.06.98)	US	<p>(71) Applicants (for all designated States except US): <b>DANA-FARBER CANCER INSTITUTE [US/US]; 44 Binney Street, Boston, MA 02115 (US); THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK [US/US]; West 116th Street &amp; Broadway, New York, NY 10027 (US).</b></p> <p>(72) Inventors; and (75) Inventors/Applicants (for US only): <b>WYATT, Richard, T. [US/US]; 11 Delphi Circle, Andover, MA 01810 (US). SO-DROSKI, Joseph, G. [US/US]; 10 Ashland Place, Medford, MA 02155 (US). KWONG, Peter, D. [US/US]; Apartment 403, 352 West 15th Street, New York, NY 10011 (US). HENDRICKSON, Wayne, A. [US/US]; 161 Mt. Hope Boulevard, Hastings-On-Hudson, NY 10706 (US).</b></p> <p>(74) Agents: <b>EISENSTEIN, Ronald, I. et al.; Dike, Bronstein, Roberts &amp; Cushman, LLP, 130 Water Street, Boston, MA 02109-4280 (US).</b></p> <p>(81) Designated States: <b>AU, CA, JP, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</b></p> <p><b>Published</b> <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p>			
08/966,932	10 November 1997 (10.11.97)	US																																												
08/976,148	10 November 1997 (10.11.97)	US																																												
08/967,708	10 November 1997 (10.11.97)	US																																												
08/967,403	10 November 1997 (10.11.97)	US																																												
08/966,987	10 November 1997 (10.11.97)	US																																												
08/976,741	24 November 1997 (24.11.97)	US																																												
60/089,581	17 June 1998 (17.06.98)	US																																												
60/089,580	17 June 1998 (17.06.98)	US																																												
09/100,762	18 June 1998 (18.06.98)	US																																												
09/100,631	18 June 1998 (18.06.98)	US																																												
09/100,521	18 June 1998 (18.06.98)	US																																												
09/100,763	18 June 1998 (18.06.98)	US																																												
09/100,529	18 June 1998 (18.06.98)	US																																												
09/100,764	18 June 1998 (18.06.98)	US																																												
<p>(54) Title: <b>GLYCOSYLATED MODIFIED PRIMATE LENTIVIRUS ENVELOPE POLYPEPTIDES</b></p> <p>(57) Abstract</p> <p>A modified polypeptide corresponding to an envelope glycoprotein of a primate lentivirus is described. The polypeptide has been modified from the wild-type structure so that it has at least two of the glycosylation sites proximal to the CD4 binding site or chemokine receptor site altered so that the alteration prevents glycosylation at that site or where glycosylation sites distal to these sites have been derivatized with a molecular adjuvant, while retaining the overall 3-dimensional structure of a discontinuous conserved epitope of the wild-type protein. Preferably, the polypeptide has both changes. Preferably, the primate lentivirus is HIV, and the protein is HIV-1 gp 120.</p>																																														